

INTERNATIONAL SEARCH REPORT

International Application No
PCT/JP2004/012674

A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 C10J3/00 C10G1/02 C10G9/32 C10G51/06 C10B53/06
F23C10/00

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC 7 C10J C10G C10B F23C

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 4 082 615 A (HIRATO MIZUNO ET AL) 4 April 1978 (1978-04-04) the whole document	1-58
A	GB 1 398 858 A (OCCIDENTAL PETROLEUM CORP) 25 June 1975 (1975-06-25) the whole document	1-58
P, X	WO 2004/016716 A (EBARA CORP ; HOSODA SHUGO (JP); MATSUOKA KEI (JP); TOKUDOME TATSUO (JP) 26 February 2004 (2004-02-26) the whole document	1-58
X	WO 02/051966 A (EBARA CORP ; MATSUOKA KEI (JP); MIYOSHI NORIHISA (JP); TOYODA SEIICHIRO) 4 July 2002 (2002-07-04) the whole document	1-58
		-/-

Further documents are listed in the continuation of box C.

Patent family members are listed in annex.

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- *O* document referring to an oral disclosure, use, exhibition or other means
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- *Y* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- *&* document member of the same patent family

Date of the actual completion of the international search

9 December 2004

Date of mailing of the international search report

18/01/2005

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INTERNATIONAL SEARCH REPORTInternational Application No
PCT/JP2004/012674**C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT**

Category	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	EP 1 030 150 A (EBARA CORP) 23 August 2000 (2000-08-23) the whole document -----	1-58
X	EP 1 043 385 A (EBARA CORP) 11 October 2000 (2000-10-11) the whole document -----	1-58

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/JP2004/012674

Patent document cited in search report		Publication date		Patent family member(s)	Publication date
US 4082615	A	04-04-1978	JP	972071 C	27-09-1979
			JP	51104473 A	16-09-1976
			JP	54004722 B	09-03-1979
GB 1398858	A	25-06-1975	NONE		
WO 2004016716	A	26-02-2004	WO	2004016716 A1	26-02-2004
WO 02051966	A	04-07-2002	EP	1346011 A1	24-09-2003
			WO	02051966 A1	04-07-2002
			JP	2004517169 T	10-06-2004
			US	2004045272 A1	11-03-2004
EP 1030150	A	23-08-2000	WO	9923431 A1	14-05-1999
			AU	732542 B2	26-04-2001
			AU	4793697 A	24-05-1999
			BR	9715205 A	20-08-2002
			CA	2309139 A1	14-05-1999
			EP	1030150 A1	23-08-2000
EP 1043385	A	11-10-2000	JP	11181450 A	06-07-1999
			AU	734203 B2	07-06-2001
			AU	1683999 A	05-07-1999
			BR	9815349 A	25-02-2004
			CA	2314986 A1	24-06-1999
			EP	1043385 A1	11-10-2000
			CN	1129662 B	03-12-2003
			ID	26163 A	30-11-2000
			WO	9931202 A1	24-06-1999
			RU	2220187 C2	27-12-2003